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09/966,830	09/28/2001	David A. Bottom	42390P12322	5003

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EXAMINER

NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/966,830

Applicant(s)

BOTTOM ET AL.

Examiner

George C. Neurauter, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

Claims 1-26 are currently presented and have been examined.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 August 2005 has been entered.

***Response to Arguments***

Applicant's arguments filed 22 August 2005 have been fully considered but they are not persuasive.

The Applicant argues Fee does not teach electing a electing a second server automatically as the active manager server to replace the first server as the active manager server and redirecting requests for the first server to the second server.

Fee discloses:

"In order for the networking chassis to function as a single system (i.e., in the view of the network and its users), the networking modules and other components (e.g., the power supply) within the chassis need to discover each other. Each

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module is required to keep track of the presence or absence of other modules and components within the same chassis, and of other operational parameters of each module/component. Module discovery is a continuous process, with each module issuing on a timely basis (order of seconds) an unsolicited message on the backplane of the chassis. The message contains basic information about the module, such as its slot ID within the chassis, internal management and external data link addresses, and the status of various objects on the module. Each module uses this information to build its own slot table containing the basic information about itself and similar information regarding the other modules. This information is used by a module to discover in which chassis it is currently installed. Once the module is discovered and entered into the slot table, the module may be polled for information about its resources. Each module includes its own processor (CPU), memory, and interfaces. The information in the slot table compiled by each module may include information concerning the type, speed and utilization of its CPU, the type, size and consumed amount of its memory, and the type and speed of its interfaces. The information may further describe applications on that module, such as the type of application (stand-alone or distributed), and its status (enable, disable, standby). As described hereinafter, once the

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modules have discovered one another, additional discovery may take place regarding the managed objects within the chassis's database and an election of modules is made to perform each specific management application. (column 3, lines 1-32)

"At start-up or after a system change (module failure/removal, etc.), an election process is required to discover the best location(s) to run a management application(s). The decision on where to locate an application (i.e., which module) within the chassis may be based on the following: module's available resources, current applications, current profile (i.e., current processing load), module type, and slot number. Each application may have its own set of instructions for selecting the best location at which to be executed. The election instructions are performed by each module using the data found in its slot table. As each module has the same view of the system, each election process will arrive at the same result. The module selected will issue an unsolicited message with the new status of its application list. (column 3, lines 33-47)

"Packets destined for the Distributed Chassis Agent DCA (i.e., packets using the chassis IP/MAC address as the destination address) may arrive at the chassis via any one (or more) of its front panel ports (see ports 25, 27, 29 in FIG. 2),

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or in the case of the present implementation, it may also arrive via the SMB10, as the SMB10 is externalized. The packet is terminated (from the network point of view) at the entry point to the chassis. The module terminating the packet has two choices after it has terminated a packet destined to the DCA:

(79) a) It may service the packet itself (i.e. act as the DCA)

(80) or

(81) b) It may forward the packet to another module for service.

(82) The present implementation allows the SMB10 common network to be accessed from outside the chassis. The SMB10 may be used by a network management station (NMS) as a channel on which to manage the chassis. In the event that a NMS is located on the SMB10, a single module is elected to act as the DCA as all modules will receive packets destined to the DCA (i.e., the SMB10 is a multiaccess network)." (column 8, lines 24-46)

In view of the disclosures of Fee, Fee does disclose electing a second server automatically as the active manager server to replace the first server as the active manager server and redirecting requests for the first server to the second server wherein the second server sending an unsolicited message to the other servers so that the servers are aware of the second

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server being elected and can redirect requests for the chassis management application to the second server.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 6, 9-13, 15-21, and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5 522 042 A to Fee et al.

Regarding claim 1, Fee discloses a method comprising:

electing a first server (referred to throughout the reference as "module") as active manager server ("best location...to run the chassis application(s)"), wherein the first server resides in a chassis; determining automatically, by receiving an indication, if the first server has failed or has been overloaded, wherein the indication is generated based on health matrices and performance matrices; electing a second server automatically as the active manager server to replace the first server as the active manager server in response to the indication received, wherein the second server resides in the

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chassis; and redirecting requests for the first server to the second server. (column 3, lines 33-47; column 7, line 47-column 8, line 5, specifically column 7, lines 49-53)

Regarding claim 3, Fee discloses the method of claim 1, further comprising:

extracting the health metrics and performance metrics ("resources"), wherein the health metrics and performance metrics are dynamic; replicating the health metrics and performance metrics, wherein the replicating the health metrics and performance metrics is performed periodically; and dynamically updating a database ("slot table") populated with the health metrics and performance metrics. (column 7, lines 19-39)

Regarding claim 4, Fee discloses the method of claim 3, wherein the health metrics are server-based. (column 7, lines 19-39)

Regarding claim 6, The method of claim 3, wherein the performance metrics comprise operating system-based metrics, kernel-based metrics, and server-based metrics. (column 7, lines 19-39)

Regarding claim 9, Fee discloses the method of claim 3, further comprising replicating identification information,



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wherein the identification information is static. (column 7, lines 29-31)

Regarding claim 10, Fee discloses a high-availability management system comprising:

a chassis comprising a plurality of slots; (column 4, lines 44-49)

a plurality of server modules coupled with the plurality of slots, wherein a first server module of the plurality of server modules is elected an active manager server; an indication to automatically determine if the first server module as failed or has been overloaded, wherein the indication is generated based on health matrices and performance matrices; a second server module to automatically replace the first server module as the active manager server in response to the indication received; and a redirection process to redirect requests for the first server module to the second server module. (column 4, lines 44-49; column 7, line 47-column 8, line 5, specifically column 7, lines 49-53)

Regarding claim 11, Fee discloses the high-availability management system of claim 10, further comprising a database ("slot table") coupled to the chassis for storing information regarding chassis identification, slot identification, and

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server module type. (column 6, line 50-column 7, line 19, specifically "Chassis IP address", "Slot ID", and "Module Type")

Regarding claim 12, Fee discloses the high-availability management system of claim 10, wherein the first server module of the plurality of server modules is elected the active manager server based on a predetermined criteria. (column 7, line 47-column 8, line 5, specifically column 7, lines 53-61)

Regarding claim 13, Fee discloses the high-availability management system of claim 10, wherein a second server module of the plurality of server modules is elected the active manager server, based on the predetermined criteria, to replace the first server module as the active manager server when the first server module is to be replaced. (column 7, line 47-column 8, line 5, specifically column 7, lines 49-53)

Regarding claim 14, Fee discloses the high-availability management system of claim 10, wherein the election of the first server module as the active manager server is performed by middleware, wherein the middleware is a software. (column 7, line 47-column 8, line 5, specifically column 7, lines 62-65)

Regarding claim 15, Fee discloses the high-availability management system of claim 13, wherein the election of the second server module as the active manager server is performed

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by the middleware. (column 7, line 47-column 8, line 5, specifically column 7, lines 62-65)

Regarding claim 16, Fee discloses the high-availability management system of claim 10, wherein the first server module is elected from a group comprising servers, telephone line cards, and power substations. (column 4, lines 44-49; column 7, line 47-column 8, line 5, specifically column 7, lines 49-61, specifically line 60)

Regarding claim 17, Fee discloses a method of uninterrupted management using sticky identification comprising:

assigning a chassis identification ("Chassis IP address") to a chassis coupled to a computer, wherein the chassis comprises a slot (column 4, lines 44-49); assigning a slot identification ("Slot ID") to the slot based on the slot's location in the chassis; assigning a server module type ("Module Type") to the slot based on the chassis identification and the slot identification, wherein the server module type indicates server module characteristics; (column 6, line 50-column 7, line 19)

electing a first server module as active manager server, wherein the first server module resides in the chassis; determining automatically, by receiving an indication, if the first server module has failed or has been overloaded, wherein

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the indication is generated based on health matrices and performance matrices; electing a second server module automatically as the active manager server to replace the first server module as the active manager server in response to the indication received, wherein the second server module resides in the chassis; and redirecting requests for the first server module to the second server module. (column 4, lines 44-49; column 7, line 47-column 8, line 5, specifically column 7, lines 49-53)

Regarding claim 18, Fee discloses the method of uninterrupted management using sticky identification of claim 17, further comprising retaining the server module characteristics corresponding to the server module type. (column 7, lines 6-19)

Regarding claim 19, Fee discloses the method of uninterrupted management using sticky identification of claim 17, further comprising:

removing a first server module from the slot; coupling a second server module to the slot; and managing the second server module based on the server module characteristics corresponding to the server module type, wherein the managing the second server module is performed without updating a network management system. (column 3, line 63-column 4, line 4)

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Regarding claim 20, Fee discloses the method of uninterrupted management using sticky identification of claim 17, further comprising:

assigning a user-defined chassis identification; ("Chassis IP address")

assigning a user-defined slot identification; ("Slot ID")

assigning a user-defined module identification; ("Module Type") and

retaining the user-defined chassis identification and the user-defined slot identification and the user-defined module identification. (column 7, lines 19-28)

Claims 21 and 23 are also rejected since claims 21 and 23 recite a machine readable medium that contain substantially the same limitations as recited in claims 1 and 3 respectively.

Claims 24-26 are also rejected since claims 24-26 recite a machine readable medium that contain substantially the same limitations as recited in claims 17-19 respectively.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

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the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 2 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al.

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Regarding claim 2, Fee discloses the method of claim 1, wherein the election is performed based on a predetermined criteria. (column 7, line 47-column 8, line 5, specifically column 7, lines 53-61)

Fee does not expressly disclose wherein the predetermined criteria comprises electing a server with the lowest IP address as the active manager server, however, Fee does disclose electing a server with the lowest slot number as the active manager server and also broadly suggests that other form of predetermined criteria may be used to elect an active manager server if necessary (column 7, line 47-column 8, line 5, specifically column 7, line 67-column 8, line 3). Fee also discloses that each server has an IP address (column 7, line 15).

It would have been obvious to one skilled in the art at the time the invention was made to elect a server based on the lowest IP address because the Applicant has not disclosed that using the limitation undisclosed in Fee provides any sort of an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the method of electing a active manager server based on the lowest slot number described in Fee as recited in the claim

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because, in absence of any disclosure by the Applicant of specifically why electing based on the lowest IP address has any sort of advantage over, for example, a random selection of a server, Fee's method of electing an active manager server based on the lowest slot number or any other predetermined criterion as shown in Fee would perform equally as well as the Applicant's method of selecting by the lowest IP address, something which Fee suggests is possible based on the above disclosures.

Claim 22 is rejected since claim 22 recites a machine readable medium that contains substantially the same limitations as recited in claim 2.

Claims 5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. in view of US Patent Application Publication 2002/0062454 A1 to Fung.

Regarding claim 5, Fee discloses the method of claim 3.

Fee does not expressly disclose wherein the health metrics comprise tracking power levels and temperature levels based on predetermined thresholds, however, Fee does suggest that metrics other than those disclosed may be also be tracked (column 7, lines 33-39)

Fung discloses the above limitations (paragraphs 0138-0139)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method as



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disclosed in Fee with the tracking of power levels and temperature levels as disclosed in Fung since Fung discloses that tracking power levels enables an active server manager ("Management Module") to shut down or cycle power on a server module (paragraph 0139, lines 2-6) and tracking temperature levels enables an active server manager to control the operation of fans to keep temperatures at an appropriate level (paragraph 0138, lines 2-6). Fung also discloses that predetermined thresholds enable notification of a user or the active server manager (paragraph 0138, lines 6-8; paragraph 0139, lines 10-12). Based on these specific advantages disclosed in Fung and that both references are directed to server module monitoring using an active server module, one of ordinary skill in the art would have appreciated the advantages disclosed in Fung and would have been motivated to combine the teachings of the references since both references would be considered to be analogous based on their related fields of endeavor.

Regarding claim 7, Fee discloses the method of claim 3, wherein the performance metrics comprise tracking CPU utilization and memory utilization. (column 7, lines 33-39)

Fee does not expressly disclose wherein tracking the CPU utilization and memory utilization is based on predetermined

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thresholds, however, Fund does disclose these limitations (paragraph 0138, lines 6-8; paragraph 0139, lines 10-12).

Claim 7 is rejected since the motivations regarding the obviousness of claim 5 also apply to claim 7.

Regarding claim 8, Fee discloses the method of claim 3.

Fee does not expressly disclose wherein the method further comprises an alert mechanism to alert whenever the health metrics or the performance metrics violate the predetermined thresholds, however, Fung does disclose these limitations (paragraph 0138, lines 6-8; paragraph 0139, lines 10-12).

Claim 8 is rejected since the motivations regarding the obviousness of claim 5 also apply to claim 7.

#### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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